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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,545	03/17/2004	Daan Veenigen	94.0076	3709
7590 Danita Mascles, Esquire Schlumberger Technology Corporation 5599 San Felipe, Suite 1700 Houston, TX 77056-2722			EXAMINER THOMPSON, KENNETH L	
			ART UNIT 3672	PAPER NUMBER
			MAIL DATE 06/30/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/802,545

Applicant(s)

VEENINGEN ET AL.

Examiner

Kenneth Thompson

Art Unit

3672

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60, 62 and 64-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60, 62 and 64-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-60, 62 and 64-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Wylie et al., U.S. 2004/0149431.

Wylie et al. discloses recording and displaying means for [0146] generating a summary of a drillstring for an interval in response to data [0167], generating a diameter of the first and second drill collar [0124] with respect to the drift diameter, generating an outer diameter of a heavy drillstring for various sized boreholes [0021,0022], generating weight on the bit [0258], first collar or section (324) and second collar (318) of the drill string, generating lengths for the first and second collars or sections [0257], determining tension [0426], cost [0225] and kick tolerance [0213].

Wylie et al. discloses extending hole intervals and optimize placement, real-time operations that involve collecting, analyzing, and interpreting data should be available. Visualization models can help interpretation. Real-time information that updates the seismic, reservoir, geomechanical, and drilling models (including 3D and 4D

visualization models) allow updates and directives to be given to the bottomhole assembly so that immediate drilling actions can be taken.

Wylie et al. discloses [0138] to be successful, the monodiameter wellbore and Monowell require a higher level of precision in all areas including seismic interpretation, reservoir modeling, planned well path, and individual drilling component designs. Historical information from drilling the surrounding wells, along with seismic and geomechanical analyses, provides valuable insight into the well path and borehole stability management.

Wylie et al. discloses information needed in planning and constructing a monodiameter wellbore, achieved by drilling and casing one formation section at a time sequentially, include seismic analyses, geomechanical analyses, drilling fluid formulations, drilling bit designs, well path trajectories, completion design for extending the well's life, stresses, potential compaction and possible shallow water flows [0140].

Wylie et al. discloses geomechanical models and analysis are available, such as from Baroid, Geomechanics International, Sperry Sun, and Landmark, which take into account both chemical and mechanical borehole stability issues and can analyze the borehole stability from a mechanical standpoint.

Wylie et al. discloses Landmark Graphic's 3D Drill View and 3D Drill View KM (Knowledge Management), allow the operator to visualize, analyze and interpret MWD/LWD and drilling operational data in real-time. The 3D visualization of real-time data, together with the pre-planned earth model, enables the operator to make more rapid decisions.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 68-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldman et al., U.S. 2003/0015351.

Goldman et al. disclose a computer/controller 52 as means for generating a geology characteristic of the formation per unit depth in accordance with a prescribed geology model or subtask. Goldman discloses an input device 58 for inputting specifications of proposed drilling equipment or another subtask for use in the drilling of the well bore (or interval of the well bore). Computer/controller 52 further provides a means for determining a predicted drilling mechanics in response to the specifications of the proposed drilling equipment as a function of the geology characteristic per unit depth, further in accordance with a prescribed drilling mechanics model or record, [0029].

Goldman et al. discloses the predicted drilling mechanics include at least one of the following drilling mechanics selected from the group consisting of bit wear, mechanical efficiency, power, and operating parameters. In another embodiment, the operating parameters can include weight-on-bit, rotary rpm (revolutions-per-minute), cost, rate of penetration, and torque, to be further discussed herein below. The rate of

penetration further includes an instantaneous rate of penetration (ROP) and an average rate of penetration (ROP-AVG), [0033].

Response to Arguments

Applicant's arguments filed 8 February 2008 have been fully considered but they are not persuasive.

Applicant argues the prior art Wylie et al. does not disclose (1) generating a summary of a drillstring in each hole section of a wellbore in response to the input data, the summary providing a drillstring design for the wellbore geometry of each hole section of the wellbore; and (2) recording or displaying at least a portion of the summary of the drillstring in the each hole section of the wellbore on a recorder or display device, commensurate with the computer system, display of which is shown in figure 19.

Wylie et al. discloses a visualizations drilling models, to extend hole intervals, updated with respect to updated input data including seismic, reservoir and geomechanical which results in said updated drilling model or drill string design, [0145].

Applicants argue the prior art does not disclose the summary of a drill string in each hole section, where the summary provides a drill string design.

As above the to extend hole intervals drilling visualization models are updated commensurate with the computational system discloses in [0146].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Thompson whose telephone number is 571 272-7037. The examiner can normally be reached on 6:00 am - 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

25 June 2008

/Kenneth Thompson/
Primary Examiner
Art Unit 3672